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## Study of the antiulcer activity of the essential oil of the Cupressaceae tree *Juniperus phoenicea* L. (1753) in rats

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Gastric ulcers are part of a chronic relapsing disease that is well known to be a polyetiologic chronic disease. Although many classic drugs are available to treat gastric ulcer, herbal medicines have triumphed as a diverse popular therapy and are emerging as an alternative to the available synthetic drugs. The aim of this study was to evaluate the ulcero-protective of essential oil extracted from the leaves of *Juniperus phoenicea* (EOJp) against HCl/ethanol-induced ulcers in rats. The *in vivo* pre-treatment with EOJp at oral doses of 50, 75 and 100 mg/kg body weight has potent anti-ulcer activity, which justifies the ethnomedical claims about its significant gastro-protective effect. In fact, the pre-treatment with EOJp significantly decreased the malondialdehyde (MDA) content and increased the activities of Superoxide Dismutase (SOD), Catalase (CAT) and Glutathione Peroxidase (GPx). This effect may be related to an increase in the gastric mucosal defence mechanisms and the results of our study revealed histo-pathological maintaining of the integrity of the mucosa. As a result, the protective effect of the essential oil and its low toxicity requires further study to elucidate the mechanism of action and isolate the active principles.

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## Re-examinations and post-grant proceedings in patent prosecution before the US patent and trademark office

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After enactment of the American Invents Act signed into law by President Obama effective September 16, 2012, there have been significant changes in how patentable inventions are protected and new ways of enforcing patent protection. Biomedical and computer software patents were particularly hard hit by the Supreme Court decision in *Alice Corp. v. CLS Bank International* and the finding that patents drawn to an abstract idea may not be enforceable. Patent invalidation through *inter partes* reviews and Covered Business Method challenges have become favorite vehicles over the more expensive court litigation used before. Inventors and owners of patent applications have to be far more careful when working with their patent attorneys and agents in formulating patent claims. Accused infringers and opponents of certain patents, on the other hand, need to educate themselves quickly in how to best challenge patents they believe to be unenforceable. Basic patent prosecution and very advanced reexamination practice have become more complex and at the same time, more critical to master.

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